

RETURN ON EQUITY EFFECT AND DEBT TO EQUITY RATIO ON RETURN STOCK OF FOOD AND BEVERAGE

Kristian Chandra

Master of Management, Faculty of Business Economics, Trisakti University

E-mail: kristian.chandra@trisakti.ac.id

ABSTRACT

The objective of research is to analyze the influence of Return on Equity and Debt to equity to stock returns. In this study the subjects taken were stocks that entered the food and beverage sector that were listed on the Indonesia Stock Exchange (IDX) during 2010 - 2015. The selection of samples in this study was conducted by Purposive Sampling in order to obtain a representative sample according to predetermined criteria. The number of food and beverage industry samples that meet the criteria are 13 listed on the Indonesia Stock Exchange in 2010-2015. The data analysis technique used to solve the problem in this study is panel data regression analysis with the help of the EViews program. The results of this study indicate that ROE has a positive and not significant effect on stock returns and DER has a positive and significant effect on food and beverage stock returns listed on the IDX in 2010-2015.

Keywords: *Return on Equity, Debt to equity, stock return*

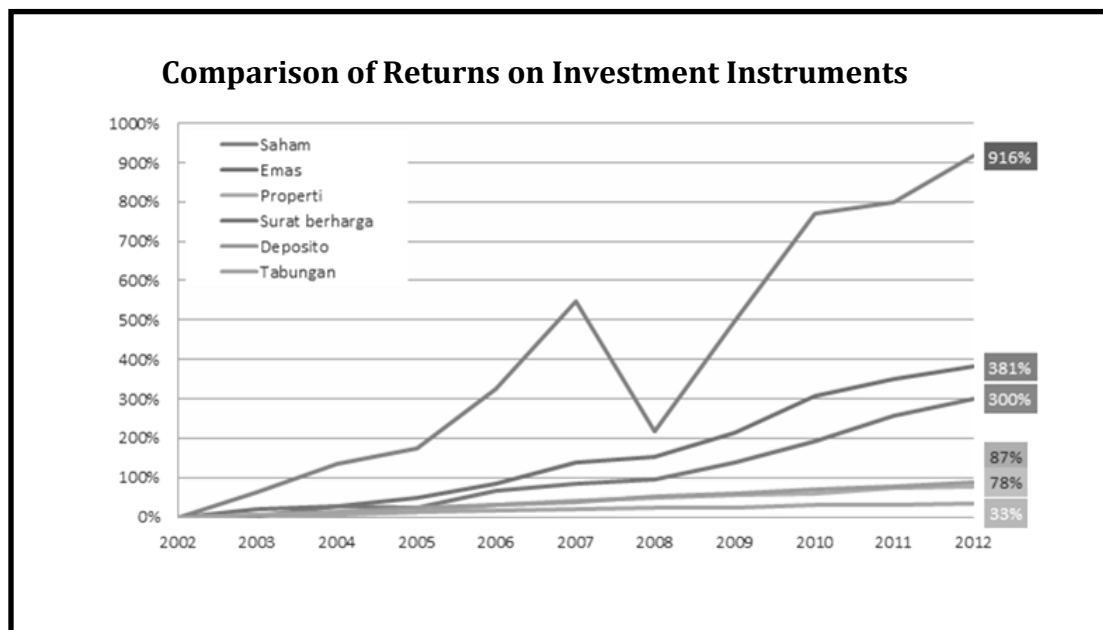
INTRODUCTION

The capital market is essentially a market that is not much different from the traditional markets that we have known so far, where there are traders, buyers and also price bargains. The capital market can also be interpreted as a vehicle that brings together parties who need funds with those who provide funds in accordance with the rules set by institutions and professions relating to securities (Husnan, 2003).

Increased profits by the company can be reached in various ways. One of them is by investing in the capital market. Investment activity is an activity of placing funds on one or more assets for a certain period in the hope of obtaining income or an increase in the value of the initial investment (capital) which aims to maximize expected returns or returns within acceptable risk limits for each investor (Jogiyanto, 2003: 21).

Investors request capital market instruments for portfolio investment purposes so that they can ultimately maximize income (Anoraga and Pakarti, 2006). One instrument in the capital market is stocks, bonds, and derivatives. From the instrument above the stock has the biggest yield from the others.

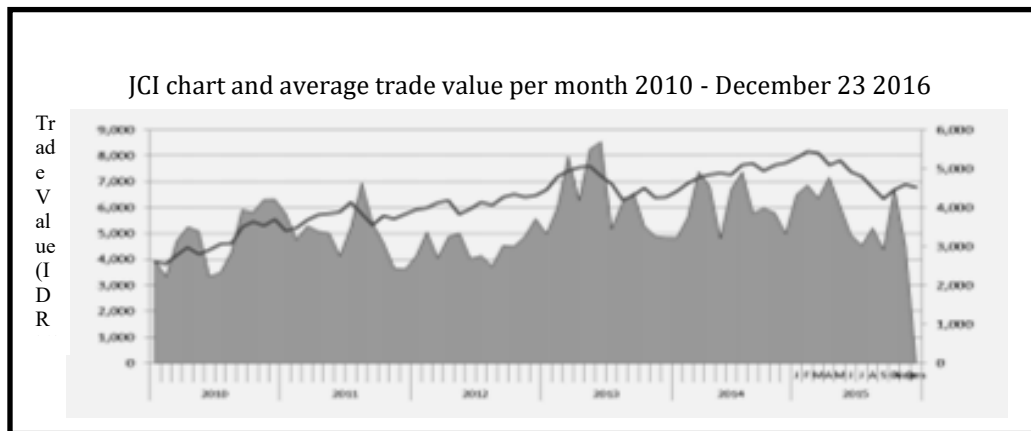
Chart 1.1: Returns on Investment Instruments



Source : *Bloomberg, BI*

Based on Bloomberg graph 1.1 data, we can see that the biggest return on investment instruments is stocks. Every investor will be interested in buying shares that are considered to provide high returns that can provide benefits to these investors. So many investors are interested in investing in stocks. So that the volume of stock trading fluctuated.

Chart 1.2: Trading Daily Stock Average 2010-2015



Source : ojk.go.id

The pattern of stock trading behavior in the capital market can contribute to the pattern of stock price behavior in the capital market. The behavior pattern of stock prices will determine the pattern of returns received from these shares (Budi and Nurhatmini, 2003). Return can be used as a measure to measure the success of a company. Return is the result obtained from investment in the form of realized return and expected return. Return realization is a return that has occurred which is calculated based on historical data and is used as a measure of company performance. While the expected return is the return expected by investors in the future. Return realization is needed because it is used as a measure of company performance. This historical return is also useful as a basis for determining expected returns and risks in the future (Jogiyanto, 2003).

The decision to invest requires a variety of information, not only fundamental information related to company performance, but also technical. According to Sawir (2005: 4), there are two factors that influence return on investment, namely the first is the company's internal (fundamental) factors such as management quality, the condition of the

company's financial structure and performance, and so on. The company's financial performance can be seen from the company's financial ratios. Second is external (technical) factors, for example the impact of monetary and fiscal policies, developments in the industrial sector and macroeconomic factors such as inflation, Bank Indonesia interest rates and so on. Information related to the condition of this company is generally shown in financial statements that are often used to predict prices and stock returns. Corporate finance is the most important aspect in carrying out and advancing the company, and this information is needed for internal companies and external parties in making decisions.

The internal factors used in this study are the effect of ROE (Return on Equity), and DER (Debt to Equity Ratio). These two factors will later be used as a reference for investors in making investments. If internal and external factors have good conditions, investors are interested in investing in their share capital, so that the demand for shares increases as a result the stock price rises (Gunawan, 2012).

The Ministry of Industry and Trade said that the growth of the industrial sector in 2015 grew by 5.04 percent, higher than the economic growth of 4.79 percent.

The highest growth in the non-oil and gas industry branch in 2015 was achieved by the metal goods industry; computers, electronic goods, optics; and electrical equipment amounting to 7.83 percent, followed by the food and beverage industry at 7.54 percent and the machinery and equipment industry at 7.49 percent. The contribution of the non-oil and gas processing industry sector in 2015 was 18.18 percent with a value of Rp. 2,098.117 Trillion. So the growth of the food and beverage industry is in second place.

The Food and Beverage Entrepreneurs Association (GAPMMI) estimates that the sales value of food and beverage products in 2015 will reach Rp 1,000 trillion. The annual average growth in the real sales index of food, beverages and tobacco released by Bank Indonesia in 2014 was higher than in 2013. The increasing population and growth of middle class income, improved economic projections accompanied by increased public purchasing power (Ramli, 2010; Ramli, 2012) and rapid modern retail outlets became drivers demand for the food and beverage industry. BPS data shows, over the past 10 years, the average monthly expenditure per capita for food and beverages amounted to 51% of total expenditure. While the AC Nielsen study shows 48% of the total middle class income expenditure in Indonesia is for fast moving consumer goods (FMCG), especially food and

beverages. The food and beverage industry has many product differentiations. The increasing middle class income population will have a significant impact on the development of processed food and beverage industries in Indonesia. Healthy, convenience and lifestyle food products are expected to grow rapidly along with the increase in people's welfare and lifestyle changes.

Based on this background, the authors are interested in conducting research on whether there is influence on ROE (Return on Equity), and DER (Debt to Equity Ratio) on the Stock Return of the Food and Beverage Sector on the Indonesia Stock Exchange.

LITERATURE REVIEW

Stock price

Shares (stock or share) can be defined as a sign of participation or ownership of a person or entity in a company or limited liability company. A tangible piece of paper that explains that the paper owner is the owner of the company that issued the securities. The portion of ownership is determined by how much investment is invested in the company (Darmadji and Fakhrudin, 2006). Shares can be traded on the stock exchange, which is a place used to trade securities after the primary market. Basically, there are two advantages and disadvantages obtained by investors by buying or owning shares according to the profits obtained (www.idx.co.id), namely:

1. Dividen

Dividend is the profit sharing given by the company. Dividends are given after obtaining approval from shareholders at the GMS.

2. Capital Gain

Capital gain is the difference between the purchase price and the higher selling price. Capital gain is formed by the existence of stock trading activities in the Secondary Market.

Losses that can be obtained:

1. Capital Loss

In share trading activities, investors do not always get capital gains or profits for the shares they sell. Sometimes investors have to sell lower than the purchase price.

2. The company goes bankrupt or liquidated

If a company goes bankrupt, of course it will have a direct impact on the company's shares. Companies that are bankrupt or dissolved will be issued from the Stock Exchange.

Investors in buying shares mean they buy company prospects. If the company's prospects are good, the stock price will increase. Shares are proof of ownership that provides irregular income because it depends on market mechanisms (Sutrisno, 2001).

Stock returns

Return is the return on an investment which is usually expressed as an annual percentage rate. Stock return is the level of profit that will be obtained by investors who invest their funds in the capital market. This stock return can be used as an indicator of trading activities in the capital market. According to Jogiyanto (2003), stock returns are divided into two, namely return realization (realized return) and expected return. Return realization (realized return) is a return that has occurred which is calculated based on historical data and is used as one of the measuring tools of company performance. While the expected return is a return that is expected to be obtained by investors in the future.

Unlike the realization return that has already occurred, the expected return of its nature has not yet occurred. Return realization is important because it is used as a measure of financial performance and is also useful as a basis for determining expected returns and risks in the future. In investing investors are faced with uncertainty between the return that will be obtained with the risks that will be faced. The greater the return expected from investment, the greater the risk, so that the expected return has a positive relationship with risk (Jogiyanto, 2003).

Return describes the results obtained by investors from investment activities that have been carried out for a certain period of time, which consists of Capital Gain (loss) and Yield (Jogiyanto, 2003). Capital gain (loss) is the difference in profit (loss) of the investment price now relative to the price of the past period. Yield is the percentage of periodic cash receipts for the investment price of a certain period of an investment.

In this study, stock returns that are taken into account are stock returns derived from capital gains without taking into account the existence of dividend yield. Because

basically the dividends that are distributed are smaller than the capital gains, so they don't have much effect if they are not taken into account. In this study using the realized return is the return that has occurred or the actual return. Measurement of returns according to market theory can be formulated as follows: (Jogiyanto, 2003):

$$\text{Stock Return} = \frac{P_t - P_{t-1}}{P_{t-1}} * 100\%$$

Several studies that have become empirical evidence to support the hypothesis in this study are research conducted by Rizki Tampubolon (2009) with the title "Influence of Financial Performance on the Return of Shares of Plantation Companies listed on the Indonesia Stock Exchange". This study uses financial ratios Earning Per Share (EPS), Price Earning Ratio (PER), Debt to Equity Ratio (DER), Return on Investment (ROI), and Return on Equity (ROE) as independent variables and stock returns as dependent variables. The analytical method used is descriptive analysis and statistics (SPSS data processing). The results say that simultaneously, all variables have a significant effect on stock returns and partially EPS, PER, and ROI have a significant effect while DER and ROE have a positive but not significant effect.

While the research conducted by Arista (2012) with the title "Analysis of Factors - Factors Affecting Stock Returns (Cases in Manufacturing Companies that Go Public in the Period of 2005-2009" provide DER results negatively affect stock returns.

Ratna Prihantini (2009) conducted a study entitled "Analysis of Inflation, Exchange Rate, ROA, DER and CR Against Stock Returns (Case Study of Real Estate and Property Industrial Stocks Listed on the Indonesia Stock Exchange 2003-2006 Period)". This study uses exchange rates, ROA, DER and CR inflation as independent variables (free) and stock returns as the dependent variable (dependent variable) and uses the method of data analysis, namely multiple linear regression analysis. The results of this study are inflation, exchange rates and DER have a negative and significant effect on stock returns, while ROA and CR have a positive and significant effect on stock returns.

With the results of the empirical research above, the hypotheses used in this study are:

H1: *There is an influence of the Debt to Equity Ratio on stock returns in food and beverage companies listed on the IDX for the period of 2010 – 2015*

H2: *There is an effect of Return on Equity on stock returns in food and beverage companies listed on the IDX in the period of 2010 – 2015*

RESEARCH METHOD

This research is associative research, namely research that aims to determine the influence or also the relationship between two or more variables (Sugiyono, 2005). Therefore this study aims to determine the effect of independent variables on the dependent variable and how strong the influence is. Based on the type of data, this research is a quantitative research, namely research in the form of numbers. The variables of this study include dependent and independent variables.

1. Variable Dependent (Y) is also called the type of dependent variable which is a variable that is caused or influenced by an independent variable (free). The dependent variable in this study is stock returns (Y). In this study the Dependent variable is Stock Return at the end of the year. Stock return is the level of profit enjoyed by investors for the investment they make. Stock return is the result of securities investment (shares) in the form of capital gain (loss), namely the difference between the current stock price (closing price in period t) with the stock price of the previous period (closing price in period t-1) divided by the period stock price beforehand (closing price at period t-1) can be written with the formula (Jogiyanto.2010):

$$\text{Stock Return} = \frac{P_t - P_{t-1}}{P_{t-1}} * 100\%$$

Information :

P_t : Current Stock Price

P_{t-1} : Previous Stock Price

2. Independent Variables (X) Independent variables are variables that affect other variables or produce results on other variables. In this study the independent

variable or independent variable is Return on Equity (X1) and Debt to Equity Ratio (X2).

a. Return On Equity (ROE)

Return on Equity (ROE) is the independent variable in this study. Return on Equity (ROE) is a ratio to measure the level of effectiveness of a company in generating profits that utilize equity. Return on Equity (ROE) is a comparison of profit with own capital. Return on Equity (ROE) is calculated by the formula:

$$ROE = \frac{\text{Net Profit}}{\text{Own capital}}$$

b. Debt to Equity Ratio (DER)

Debt to Equity Ratio connects total debt with own capital. Debt to Equity Ratio is used to measure the level of leverage in meeting long-term debt. This ratio describes the capital structure of the company which is funded by creditors and funded by the owner of the company. This ratio can be calculated using the following formula:

$$DER = \frac{\text{Total Liability}}{\text{Own capital}}$$

Population and Sample Research

Population is the total number of research subjects. The implementation of research is always dealing with objects that are interesting to study. In this study the subjects taken were stocks that entered the food and beverage sector that were listed on the Indonesia Stock Exchange (IDX) during 2010 - 2015.

The selection of samples in this study was conducted by Purposive Sampling with the aim of getting a representative sample according to predetermined criteria. The criteria used are as follows:

1. Food and beverage companies listed on the Indonesia Stock Exchange and publish financial statements with the book period ending December 31 each year.
2. The company issues annual reports and notes on financial statements for 2010-2015 respectively.
3. The company did not experience delisting from the Indonesia Stock Exchange during the study period.

4. Having data needed in research

The number of food and beverage industry samples that meet the criteria are 13 listed on the Indonesia Stock Exchange in 2010-2015. The sample in this study can be seen in Table 3.1. following

Table 3.1:Research sample

No	Company Name	Code
1	Akasha Wira International Tbk	ADES
2	Tiga Pilar Sejahtera Food Tbk	AISA
3	Wilmar Cahaya Indonesia Tbk	CEKA
4	Delta Djakarta Tbk	DLTA
5	Indofood CBP Sukses Makmur Tbk	ICBP
6	Indofood Sukses Makmur Tbk	INDF
7	Mayora Indah Tbk	MYRO
8	Multi Bintang Indonesia Tbk	MLBI
9	Prasidha Aneka Niaga Tbk	PSDN
10	Sekar Laut Tbk	SKLT
11	Siantar Top Tbk	STTP
12	Nippon Indosari Corpindo Tbk	ROTI
13	Ultrajaya Milk Industry & Trading Co Tbk	ULTJ

Source : www.idx.co.id

Hypothesis testing

Hypothesis testing is a test in the form of steps to prove the researcher or hypothesis. This step is to test the truth of the hypothesis proposed by the researcher linearly. The hypothesis testing is carried out by the researcher as follows:

Coefficient of Determination (R^2)

The coefficient of determination R^2 is a concise measure that informs how well a sample regression line matches the data. The coefficient of determination R^2 essentially measures how far the model's ability to explain the variation of the dependent variable.

The coefficient of determination is between 0 and 1 ($0 < R^2 < 1$), the value (R^2) is small, which means that the ability of independent variables to explain variations in the dependent variable is very limited. A value close to 1 means that the independent variable gives almost all the information needed to predict the variation of the dependent model (Gujarati, 2003). The fundamental weakness of the use of the determination coefficient is that it is biased towards the number of dependent variables, (R^2) must increase, no matter whether the variable has a significant effect on the dependent variable or not.

Partial Statistical Test (t-Test)

The t-test is conducted to see the significance of the effect of individual independent variables on the dependent variable assuming the other independent variables are constant. The t test uses the following hypotheses (Gujarati, 2003):

Ho : $\beta_i = 0$

Ha : $\beta_i \neq 0$

Where β_i is the coefficient of the independent variable - i as the hypothetical parameter value. The value of β is usually considered zero, meaning that there is no effect of the Xi variable on Y. From the results of the t test, the conclusions that may be obtained are:

- a) If the statistical Sig is $< \alpha$, then Ho is rejected and Ha is accepted
 - b) If the statistical Sig is $> \alpha$, then Ho is accepted and Ha is rejected
- or
- a) If $t_{\text{statistik}} > t_{\text{tabel}}$, then Ho is rejected and Ha is accepted
 - b) If $t_{\text{statistik}} < t_{\text{tabel}}$, then Ho is accepted and Ha is rejected
- $\alpha = 1\%, 5\% \text{ and } 10\%$.

CONCLUSIONS AND IMPLICATIONS

Based on the results of the analysis and discussion that has been explained, it can be concluded that the good Fixed Effect model is used as follows:

1. DER has a positive and significant effect on food and beverage stock returns listed on the IDX in 2010-2015 with a coefficient of 0.031416 and a significance of 0,0005.

2. ROE has a positive and not significant effect on food and beverage stock returns listed on the IDX in 2010-2015 with a coefficient of 0.006002 and a significance of 0.7970.

Based on the conclusions and limitations of this study, some of the implications are as follows:

1. For Investors: The results of this study indicate that the DER and ROE ratio has a significant effect on food and beverage stock returns, so these variables need to be considered in assessing the performance or quality of food and beverage companies.
2. For Further Research: The coefficient of determination (R^2) produced in this study is very low, which is only 0.333412. So for the next research, it is expected to add independent variables both from internal and external factors because it is very possible that internal and external factors not included in this research model have sufficient influence on food and beverage stock returns. Examples of variables that can be included are bond yield variables where it is possible to influence returns because if the yield given by bonds is greater than the share of food, investors will likely switch and make stock returns decline. Entering GDP Growth, where if GDP Growth increases, many people are more consumptive so that the possibility of stock returns will rise.

REFERENCES

- Anoraga, Pandji dan Piji Pakarti. (2006), *Pengantar Pasar Modal*, Cetakan Kelim, Jakarta, PT. Asdi Mahasatya.
- Arista, Desi, (2012), "Analisis Faktor Faktor Yang Mempengaruhi Return Saham (Kasus Pada Perusahaan Manufaktur yang Go Public di BEI periode tahun 2005 – 2009)", *Jurnal Ilmu Manajemen dan Akuntansi Terapan*, Vol. 3, No. 1, Mei 2012,
- Budi IS, Nurhatmini E.(2003), "Pengaruh Hari Perdagangan dan Exchange Rate terhadap Return Saham di Bursa Efek Jakarta", *Jurnal Manajemen dan Bisnis*, Vol. 5, No. 1, Januari, Hal: 47-62.
- Darmadji, Tjiptono dan Fakhruddin, M. Hendi,(2006)," *Pasar Modal di Indonesia Pendekatan Tanya Jawab*",Edisi Kedua,Jakarta, Salemba Empat.
- Darmadji dan Fakhruddin,(2011), *Pasar Modal Indonesia*, Edisi Ketiga, Jakarta, Salemba Empat

- Gujarati, Damodar N. dan Dawn C. Porter, (2009), *Dasar-dasar Ekonometrika Edisi 5 Buku 1 (Basic Econometrics)*. Diterjemahkan oleh: Raden Carlos Mangunsong, Jakarta, Salemba Empat.
- Gujarati, Damodar N, (2003), *Ekonometrika Dasar. Terjemahan*, Jakarta, Erlangga.
- Gunawan, Tri, (2012), “ Pengaruh Rasio Camel, Inflasi Dan Nilai Tukar Uang Terhadap *Return Saham* (Studi Empiris: Bank Yang Terdaftar Di BEI”, *Skripsi*, Fakultas Ekonomika Dan Bisnis Universitas Diponegoro, Semarang.
- Husnan, Suad dan Pudjiastuti, Enny, (2003), *Dasar-dasar Manajemen Keuangan Edisi Ketiga*, Yogyakarta, UPP AMP YKPN
- Jogiyanto, Hartono ,(2010), *Teori Portofolio dan Analisis Investasi*, Edisi Keenam, Yogyakarta, BPFE.
- Jogiyanto, (2003), *Sistem Informasi Akuntans*, Jakarta, PT.Gramedia
- Ramli, AH (2010), *Analisis Strategi Pemasaran PT. Sandoz Indonesia Cabang Makassar Terhadap Penjualan Produk Di Makassar*. *Jurnal Ilmiah Aktualita 2 (KPN-Bung Kopertis IX Sulawesi, Makassar)*, 203-216
- Ramli, AH. (2012). *Strategi Pemasaran pada Industri Farmasi*. Pustaka Timur, Yogyakarta.
- Ratna Prihantini, Se, (2009), “ *Analisis Pengaruh Inflasi, Nilai Tukar, ROA, DER Dan CR Terhadap Return Saham (Studi Kasus Saham Industri Real Estate And Property Yang Terdaftar Di Bursa Efek Indonesia Periode 2003 – 2006)*”, Tesis Magister Manajemen Universitas Diponegoro, Semarang.
- Rizki, Tampubolon, (2009), “*Pengaruh Kinerja Keuangan Terhadap Return Saham Perusahaan Perkebunan yang Terdaftar di Bursa Efek Indonesia*”, Skripsi, Medan, Fakultas Ekonomi Universitas Sumatera Utara.
- Sawir, Agnes, (2005), *Analisis Kinerja Keuangan dan Perencanaan Keuangan Perusahaan*, Jakarta, PT GramediaPustaka Utama.
- Sugiyono, (2005), *Metode Penelitian Kuantitatif*. Bandung, CV Alfabeta.
- Sutrisno, (2001), *Managament Keuangan Teori, Konsep dan Aplikasi*, Yogyakarta, Ekonisisa.
- www.bi.go.id
- www.yahoofinance.com
- www.idx.co.id
- www.sahamok.com
- www.emeraldinsight.com
- <http://www.eia.gov/dnav/pet/PET PRI SPT S1 D.htm>

Intentionally Blank